

REMARKS

This Amendment is responsive to the non-final Office Action mailed on December 15, 2005. Claims 1, 2, 4-6, 8-10, and 13-42 are pending, of which claims 5, 6, and 26 have been cancelled. Claims 1, 4, 9, 10, 13-21, 27, 28 and 35-42 have been formally amended for purposes of clarity only. Claims 43-59 are new. Applicants appreciate the Examiner's indication that claims 1, 2, 4, 6, 8-10, 13-20, and 31-42 are allowed and that claims 22-30 are allowable. In view of the foregoing amendments, as well as the following remarks, Applicants respectfully submit that this application is in complete condition for allowance and request reconsideration of the application in this regard.

Claim Objections

Claims 1 and 32 stand objected to because of informalities. Applicants' undersigned representative is not aware of any statutory basis or rule requiring "the steps of" to be placed into the preamble of these independent claims. Accordingly, Applicants traverse this objection and respectfully request that it be withdrawn.

Rejection for Nonstatutory Double Patenting

Claim 21 stands rejected on the ground of nonstatutory obviousness-type double patenting over claim 21 of U.S. Patent No. 6,669,057, which is commonly owned by Nordson Corporation with the present application. Applicants submit on even date herewith a Terminal Disclaimer in compliance with 37 CFR 1.321, which should suffice to overcome the rejection.

Rejections of Claims Under 35 U.S.C. § 103

Claim 21 stands rejected under 35 U.S.C. § 103(a) as unpatentable over *Muller et al.* (U.S. Patent No. 6,164,568) in view of *Zook* (U.S. Patent No. 6,499,631). The Examiner admits that *Muller et al.* fails to disclose a liquid distribution manifold and a thermally insulating shield positioned between the air piston housing and the liquid distribution manifold. The Examiner contends that it would have been obvious to one of ordinary skill in the art to modify the *Muller et al.* dispensing apparatus by adding a liquid distribution manifold and a thermally insulating shield as allegedly disclosed by *Zook*. Applicants respectfully disagree for the reasons set forth below.

With regard to Applicants' independent claim 21, *Zook* fails to disclose or suggest "a thermally insulating shield positioned between said air piston housing and said liquid distribution manifold, said shield capable of reducing the transfer of heat from said liquid distribution manifold to said air piston housing." The Examiner identifies the element labeled with reference numeral (128) in *Zook* as an air piston housing. However, this identification is improper. *Zook* discloses that element (128) is a valve base manifold that supports the solenoid valves (12). Air passageways (32) in valve base manifold (128) and air passageways (234) in a heat insulator (30) transfer air pressure from the solenoid valves (12) to corresponding air passageways (36) in a service block (14), identified by the Examiner as a liquid distribution manifold. However, *Zook* fails to disclose that an air piston is positioned within the air passageways (32) of the valve base manifold (128). Hence, the Examiner cannot properly construe the element in *Zook* labeled with reference numeral (128) to be an air piston housing with an air

cavity and an air piston positioned in the air cavity, as set forth in Applicants' independent claim 21.

The Examiner construes a pneumatic applicator valve (16) disclosed in *Zook* as a dispenser body. *Zook* discloses at column 3, lines 43-49 that the applicator valves (16) are supplied with pressurized air from solenoid valves (12), which actuates the applicator valves (16) to discharge or stop the discharge of adhesive material received from service block (14). Each applicator valve (16) includes a flow-control mechanism that regulates the dispensing of liquid by having open and closed conditions for liquid flow. *Zook* fails to expressly disclose an air piston. However, a person having ordinary skill in the art would understand that the pneumatically-controlled applicator valve (16) must inherently include an air piston operatively coupled with the flow-control mechanism. Hence, each applicator valve (16) in *Zook* must include an air piston housing, an air cavity disposed in the air piston housing, and an air piston positioned in the air cavity.

Zook discloses that the applicator valve (16) is mounted directly to the service block (14), identified by the Examiner as a liquid distribution manifold, and without any intervening thermally insulating shield between the service block (14) and applicator valve (16) to limit heat transfer. The thermally insulating shield (i.e., heat insulator (30)) identified by the Examiner in *Zook* is positioned between the valve base manifold (128) for the solenoid valves (12) and the service block (14) that operates as a liquid distribution manifold. This differs from Applicants' claim 21, which sets forth that the thermally insulating shield is positioned between the air piston housing and the liquid distribution manifold.

Consequently, assuming *arguendo* that *Muller et al.* and *Zook* may be properly combined, the combination of *Muller et al.* and *Zook* fails to teach or suggest all the claim limitations found in Applicants' claim 21. Thus, for at least this reason, the Examiner has failed to establish a *prima facie* case of obviousness.

Applicants further submit that the Examiner fails to provide a sufficient motivation or suggestion to support that it would have been obvious to modify the device disclosed in *Muller et al.* in the suggested manner. *Zook* fails to expressly disclose the desirability of limiting the heat transfer between the service block (14) and the applicator valve (16). *Zook* is not concerned with preventing heat flow from the liquid distribution manifold (i.e., service block (14)) to the air piston housing (applicator valve (16)). Thus, for at least this additional reason, the Examiner has failed to establish a *prima facie* case of obviousness.

The Examiner indicates on page 5 of the December 15, 2005 Office Action that a motivation "to provide *Zook*'s thermal insulating shield between the air piston housing and the liquid distribution manifold of *Muller et al.*" would have been to "prevent the heat from the liquid distribution manifold from excessively heating the air piston housing." In this instance, Applicants believe that the only possible objective source of the Examiner's contentions with respect to the disclosure of *Muller et al.* is Applicants' own specification, which is impermissible. See MPEP § 2142. Applicants cannot find any disclosure or suggestion in *Zook* to support the Examiner's subjective rationale. Thus, for at least this additional reason, the Examiner has failed to establish a *prima facie* case of obviousness.

New Claims

Claims 43 and 44 are new claims based upon original claim 26, which was noted as allowable in the December 15, 2005 Office Action and has been cancelled by the current amendment. Claims 43 and 44, which depend from Applicants' independent claim 21, are patentable for at least the same reasons as claim 21. Claims 45-52, which are also new claims, depend from Applicants' independent claim 32. Consequently, claims 45-52 are patentable for at least the same reasons as claim 32. New claims 53-59, which depend indirectly from Applicants' independent claim 1, are patentable for at least the same reasons as claim 1.

CONCLUSION

Applicant has made a bona fide effort to respond to each and every requirement set forth in the Office Action. In view of the foregoing amendments and remarks, this application is submitted to be in complete condition for allowance and, accordingly, a timely notice of allowance to this effect is earnestly solicited. In the event that any issues remain outstanding, the Examiner is invited to contact the undersigned to expedite issuance of this application.

Applicant does not believe fees are due in connection with filing this communication other than the excess claims fee and the Terminal Disclaimer fee. If, however, additional fees are necessary because of this communication, the Commissioner is hereby

authorized to charge any under-payment or fees associated with this communication or credit any over-payment to Deposit Account No. 23-3000.

Respectfully submitted,
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